CLAIMS

I (WE) CLAIM:

1. A wireless communication system operative for transmission of packet data and low delay data on a plurality of transmission channels, the system comprising:

a first set of channels within the plurality of transmission channels, the first set of channels being assigned to packet data transmissions and packet data being transmitted in frames;

a second set of channels within the plurality of transmission channels, the second set of channels being assigned to low delay data transmissions; and

a signaling channel within the plurality of transmission channels, the signaling channel being assigned to message transmissions, wherein each message identifies a packet data target recipient.

2. The wireless communication system of claim 1, wherein a first message is transmitted on the signaling channel concurrently with an associated first packet data frame, and wherein the first message identifies a first packet data target recipient associated with the first packet data frame.

3. The wireless communication system of claim 1, wherein the first message identifies a subset of the first set of channels assigned to transmission of the first packet data.

4. The wireless communication system of claim 1, wherein the first message identifies a coding scheme used for transmission of the first packet data.

5. A wireless apparatus operative within the system of claim 1, the wireless apparatus operative to receive packet data via at least one of the first set of channels and to receive messages via the signaling channel, the wireless apparatus comprising:

a buffer operative to store packet data received via the at least one of the first set of channels;

a processor coupled to the buffer, the processor operative to determine target recipient information from the received messages; and

a decoder coupled to the processor, the decoder operative to decode data packets received if the wireless apparatus is a target recipient and ignore data packets if the wireless apparatus is not the target recipient.

6. The wireless apparatus of claim 5, wherein the target recipient information may identify multiple recipients.

7. The wireless apparatus of claim 6, further comprising:

a memory storage device coupled to the processor, the memory storage device storing computer readable instructions operative to control the decoder.

8. In a wireless communication system, the system supporting packet data transmissions and low delay data transmissions over a plurality of transmission channels, a method comprising:

transmitting packet data via a set of packet data channels; and

transmitting control information associated with the packet data via a signaling channel, wherein the signaling channel is separate from the set of packet data channels, and wherein the control information identifies a target recipient of associated packet data.

9. The method of claim 8, wherein the control information further identifies a coding scheme for the packet data.

10. The method of claim 9, further comprising:
receiving data requests from a plurality of mobile units; and
determining a transmission schedule according to the data requests.

11. The method of claim 10,
assigning a priority level to each of the plurality of mobile units; and
determining a traffic schedule among the plurality of mobile units based on priority level.

12. The method of claim 11, wherein a high priority is given to a mobile unit experiencing less interference than other of the plurality of mobile units.

13. A wireless apparatus operative to receive packet data via at least one of the first set of channels, the wireless apparatus comprising:
a processor operative to receive messages via a signaling channel and to determine target recipient information and coding information from a received messages; and
a data rate determination unit operative to calculate a data rate in accordance with the target recipient information and the coding information.

14. The apparatus of claim 13, wherein the apparatus is operative within a wireless communications system supporting high rate packet data transmissions and low delay data transmissions.

15. The apparatus of claim 13, further comprising:
a buffer coupled to the processor, the buffer operative to store packet data received via the at least one of the first set of channels;
a decoder coupled to the processor, the decoder operative to decode data packets received if the wireless apparatus is a target recipient and ignore data packets if the wireless apparatus is not the target recipient.

16. The apparatus of claim 13, wherein the target recipient information identifies multiple target recipients.

17. The apparatus of claim 13, wherein the coding information is predetermined by a transmitter and is used to encode the packet data, and wherein the apparatus further comprises:

a decoder coupled to the processor, the decoder responsive to the coding information to decode received packet data.

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